

# **RECORD OF DECISION AND PLAN OF OPERATIONS APPROVAL**

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DOI-BLM-NV-W010-2014-0022-EIS  
Plan of Operations Serial Number: NVN064629

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## **Coeur Rochester Mine Plan of Operations Amendment 10 Project (POA10) and Closure Plan**

**June 2016**

*Prepared by:*

U.S. Bureau of Land Management  
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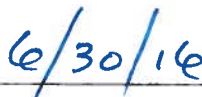
**COEUR ROCHESTER MINE PLAN OF OPERATIONS AMENDMENT 10  
PROJECT (POA10) AND CLOSURE PLAN  
FINAL ENVIRONMENTAL IMPACT STATEMENT**

**Plan of Operation Number: NVN064629  
DOI-BLM-NV-W010-2014-0022-EIS**

**Bureau of Land Management  
Winnemucca District  
Humboldt River Field Office  
Winnemucca, Nevada**



**David Kampwerth  
Field Manager**



**Date Signed**

## Introduction

The Humboldt River Field Office (HRFO) of the United States Department of the Interior, Bureau of Land Management (BLM) received a modification to the Plan of Operations (Plan) and Final Permanent Closure Plan for the Coeur Rochester Mine Project (NVN064629) from Coeur Rochester, Inc. (CRI) in June 2014. The Project includes an expansion of CRI's existing silver mining operation and a plan for implementing future final closure. The Project is located on public land administered by the BLM and private land controlled by CRI in Pershing County, Nevada, approximately 18 miles northeast of Lovelock, Nevada.

The EIS analyzed three alternatives: (1) the Proposed Action, (2) Permanent Management of Potentially Acid Generating (PAG) Material Outside of the Rochester Pit Alternative, and (3) the No Action Alternative. Under the proposed action, CRI would expand mining and mineral exploration on public lands at its Coeur Rochester Mine. This would expand the project boundary and create additional surface disturbance. The expansion would encompass approximately 231.2 acres of new surface disturbance on private and public land, for a total project surface disturbance of 2,170 acres. This would expand the existing project boundary, which encompasses approximately 4,339 acres, by an additional 499 acres, to bring the total project area to 4,838 acres of public and private land. The mine employs approximately 289 workers. The proposed action is a 20-year project, including a five- to seven-year extension of the mine life, a period of passive leaching, and approximately five years for reclamation and site closure after each mining and process facility closure. It would increase employment by 79 temporary jobs during a one-year construction phase, with no additional operations employees. The Permanent Management of Potentially Acid Generating (PAG) Material Outside of the Rochester Pit Alternative includes all of the elements of the Proposed Action, with the exception of the final storage location of the PAG material removed from the Rochester Pit. In the alternative, the PAG would be stored permanently outside of the pit on waste rock dumps. Both of these alternatives include the plan for the final closure of the mine. Under the No Action alternative the mine would continue to operate under its existing Plan of Operations.

## RECORD OF DECISION

Based on the Coeur Rochester Mine Plan of Operations Amendment 10 Project (POA10) and Closure Plan Final Environmental Impact Statement (EIS), DOI-BLM-NV-W010-2014-0022-EIS, and the following rationale, it is my decision to select the Permanent Management of Potentially Acid Generating (PAG) Material Outside of the Rochester Pit Alternative (PAG Alternative), including the applicant's committed environmental measures at EIS section 2.1.10, and all of the BLM recommended mitigation in the EIS for the Proposed Action. The modification to the Plan of Operations approval is subject to these mitigation measures, which are attached herein as the *Coeur Rochester Mine Plan of Operations Amendment 10 Project (POA10) and Closure Plan Conditions of Approval and Applicant Committed Environmental Protection Measures*. The Bureau's authority applies only to activities on public land. However, federal law and policy require that mitigation measures associated with this project apply to private lands of the project as well as to the public lands.

## Rationale

Rationale for this decision is based on factors including, but not limited to:

- 1) The Proposed Action conforms to the BLM's Record of Decision and Resource Management Plan for the Winnemucca District Planning Area, approved May 21, 2015, and amended by the Record of Decision (ROD) and Approved Resource Management Plan Amendments for the Great Basin Region, including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana, Nevada and Northeastern California, Oregon, Utah, September 21, 2015. This is in accordance with the locatable mineral objective MR9, which states, in part, "Manage locatable mineral operations to provide for the mineral needs of the nation while assuring compatibility with and protection of other resources and uses."
- 2) Based on the consultation, coordination and public involvement that has occurred, it is determined that this is a well informed decision.
- 3) This decision will provide opportunities on public lands for CRI to conduct mining exploration and development.
- 4) Based on the environmental impact analysis contained in the EIS, it is determined that this decision will not result in any undue or unnecessary environmental degradation of the public lands.
- 5) This decision is consistent with other federal, state and local plans to the maximum extent consistent with Federal law and Federal Land Policy and Management Act provisions.
- 6) The 54 U.S.C. 300101 et seq. (formerly the National Historic Preservation Act Section 106 process) was completed prior to this decision being made. A treatment plan has been prepared that addresses anticipated direct impacts on the prehistoric component of NRHP-eligible site CrNV-22-3545 and anticipated indirect impacts on NRHP-eligible site CrNV-02-401 (the Panama Townsite). On November 25, 2015, the BLM received the SHPO's concurrence to proceed with the treatment plan under the existing programmatic agreement for the project (BLM et al. 1992).
- 7) The selected alternative will not adversely impact any threatened or endangered species or significant scientific, cultural or historical resources.
- 8) The selected action, subject to implementation of all mitigation recommended in the EIS meets the purpose and need for the federal action.
- 9) Implementation of the attached *Coeur Rochester Mine Plan of Operations Amendment 10 Project (POA10) and Closure Plan Conditions of Approval and Applicant Committed Environmental Protection Measures* will serve to monitor for impacts and reduce or prevent impacts.
- 10) Based on the above stated points and the discussion that follows, the Permanent Management of Potentially Acid Generating (PAG) Material Outside of the Rochester Pit Alternative (PAG Alternative) is the environmentally preferred course of action.
- 11) Based on the President's National Energy Policy and Executive Order 13212, the PAG Alternative will not generate any adverse energy impacts or limit energy production and distribution. Therefore, no "Statement of Adverse: Energy Impact" is required per WO IM No 2002-053 and NV IM 2002-049.

## **Native American Consultation**

On January 3, 2015, the BLM sent consultation letters to the Lovelock Paiute Tribe, the Pyramid Lake Paiute, and the Fort McDermitt Paiute-Shoshone Tribe. To date, no concerns have been raised by the tribes regarding specific traditional sites, areas, or activities in the project area. The BLM has consulted with the following tribes:

- Fort McDermitt Paiute and Shoshone Tribe
- Lovelock Paiute Colony
- Pyramid Lake Paiute Tribe
- Fallon Paiute and Shoshone Tribe

## **Cooperating Agencies**

The cooperating agency relationships established during this project facilitated the exchange of views and expertise between BLM personnel and other government officials and staff. This form of consultation, unique to planning and NEPA processes, was crucial to the shaping of this EIS. The following five agencies were invited to participate with the BLM as cooperating agencies: US Fish and Wildlife Service (USFWS), Pershing County, Nevada Department of Wildlife (NDOW), U.S Environmental Protection Agency (EPA), and the Nevada Division of Environmental Protection (NDEP). None of the agencies accepted official cooperating status; however, coordination on an informal basis was maintained throughout the EIS process.

## **Intergovernmental Partners**

Under the Federal Land Policy and Management Act (FLPMA) of 1976, the BLM's coordination responsibilities include maximizing consistencies with the plans and policies of other government entities.

Coordination was conducted with the Nevada Division of Environmental Protection, Bureau of Mining Regulation and Reclamation (NDEP/BMRR) as specified within Memorandum of Understanding (MOU) 3000-NV920-0901, MOU for Mining and Mineral Related Activities within the State of Nevada.

NEPA regulations require that EISs be filed with the EPA (40 CFR, Subpart 1506.9). The draft and final EIS was submitted to the EPA, as required by CEQ regulations. Coordination was conducted with the EPA as outlined in the 2008 MOU regarding mining EISs in Nevada between the BLM and EPA.

## **Public Involvement**

### **Public Scoping**

To initiate the public scoping process, the BLM published a Notice of Intent to Prepare an Environmental Impact Statement in the Federal Register on June 27, 2014. Letters were sent to potentially interested parties and a news release was also issued by the BLM that stated the comment period to accept public comments was open for 30 days. Two public meetings were held in July, 2014, in Winnemucca and Lovelock, Nevada. The BLM received a total of 11 comment letters during the scoping period. Comments received during the scoping period were considered in the analysis of the proposed project.

### ***Issues of Concern Identified in Project Scoping***

The 11 public scoping letters contained 144 individual comments. Commenters ranged from individuals to state and federal agencies and environmental groups. Comments relating to the Proposed Action were identified and have been consolidated into the following issues:

- What are the potential impacts on air quality from mine emissions, including mercury and carbon emissions?
- What are the potential impacts on water quality and quantity, including any impacts on groundwater and surface waters?
- What are the social costs of the CRI Mine expansion for emitting greenhouse gases (GHGs), in particular carbon dioxide?
- What is the contribution to climate change from the CRI Mine expansion from emitting GHGs, in particular carbon dioxide?
- What are the potential geochemical mining impacts from chemical leaching at mine facilities, including waste disposal sites, open pits, and heap leach pads?
- What are potential impacts on wild horses and burros?
- What are the potential impacts on wildlife and special status species?
- What are the potential impacts on vegetation and riparian resources?
- What are the potential impacts on cultural resources?
- What are the potential impacts on visual resources?
- What are the indirect impacts on dispersed recreation?
- Will the process be consistent with NEPA, in particular development of baseline data and alternatives, monitoring, and cumulative impacts assessment?

### **Draft EIS**

To solicit public comments and feedback on the Draft EIS, the BLM published the Notice of Availability for the Draft EIS was published in the Federal Register on August 21, 2015. Letters were sent to potentially interested parties and a news release was also issued by the BLM that stated the Draft EIS was available for comment during a 45-day period. Two Public meetings

were held in September, 2015, in Lovelock and Winnemucca, Nevada to solicit comments from interested publics and answer questions about the project. Comments received were considered in the Final EIS.

Individuals, public agencies, and nonprofit organizations submitted 142 letters with comments on the Draft EIS. The comments and responses to them are contained in Appendix A of the Final EIS. Based on comments received, the BLM prepared the final EIS adding information that clarified and improved the EIS analysis, however, it was determined that a supplemental EIS was not necessary. This is because there were no substantial changes in the Proposed Action that are relevant to environmental concerns presented in the Draft EIS. Moreover, there were no significant new circumstances or information relevant to environmental concerns and bearing on the Proposed Action or impacts.

### Final EIS (FEIS)

The Notice of Availability for the FEIS was published by the BLM in the Federal Register on May 13, 2016, and by the EPA on May 20, 2016. The 30 day availability period ended on June 20, 2016. The BLM received three comment letters during this 30-day period. Comments were received from the EPA, the USFWS and Great Basin Resource Watch. These comment letters were evaluated and considered before approving this ROD for the project.

### **Alternatives Including the Proposed Action**

The PAG Alternative, which is the preferred alternative, includes:

- Expanding the Stage IV HLP by approximately 67 acres
- Increasing the allowable maximum Stage IV HLP stacking height from 330 feet to 400 feet
- Constructing the approximately 123-acre Stage V HLP
- Relocating portions of the American Canyon public access road and establishing an associated ROW for Pershing County on public land
- Relocating a portion of the paved Rochester main access road and abandoning the associated ROW
- Realigning the Stage IV haul road and constructing secondary access roads
- Relocating a portion of the power line and poles along the main access road and American Canyon Road to a new alignment corridor for the Stage IV HLP expansion and relocating power lines from the proposed Stage V HLP footprint, including changes to existing NV Energy ROWs.
- Relocating the electrical building and core shed
- Increasing the groundwater pumping rate
- Abandoning production well PW-2A and installing production well PW-2B
- Replacing production well PW-3A with PW-3B and subsequently abandoning production well PW-3A
- Excavating new borrow areas and constructing one new-growth medium stockpile
- Changing PAG material management to include hauling it outside the pit and permanently storing the PAG material on the north and west rock disposal sites



- Installing the Stage IV HLP conveyor system, associated load out points, ore stockpiles, maintenance road, and utility corridor, including process solutions and freshwater supply pipelines
- Delineating closure activities for proposed facilities and analysis of closure activities for existing facilities, outlined in the Final Permanent Closure Plan for the mine; this includes altering the open pit safety berm sizes, reclamation, the HLP interim fluid management plans, the HLP cover designs, installing evaporative cells (e-cells), and long-term draindown management

The Proposed Action and No Action alternatives were also analyzed in detail. The FEIS considered and eliminated from detailed analysis the following alternatives: Pit Backfill Elevation; Alternate Location for Stage V Heap Leach Pad; and Close a Portion of American Canyon Road to Public Access. Consult the FEIS for a complete discussion of alternatives and for the rationale for eliminating specific alternatives from detailed analysis.

### **Environmentally Preferred Alternative**

The BLM's environmentally preferred alternative is also the BLM's preferred alternative. The BLM's preferred alternative includes all of the environmental protection measures of the modified Plan of Operations (Plan) and all mitigation measures identified in the FEIS.

The Plan, approved below, provides for the continuation and expansion of mining and ore processing in an area where mining has been identified as an appropriate land use as stated in the Winnemucca District RMP. Approval of the Plan will allow CRI to utilize its current workforce, equipment and infrastructure to expand and extend the life of the mine. The mitigation measures specified in the ROD will minimize potential adverse environmental impacts identified in the FEIS. The monitoring requirements specified in this ROD will assist the BLM and others to identify, avoid, and/or mitigate, if necessary, any unforeseen adverse environmental impacts that may occur. The environmental measures committed to by CRI and the conditions of approval (including monitoring) in this combined ROD/Plan Approval will provide environmental protection during and after implementation of the Agency Preferred Alternative and provide BLM periodic opportunities to re-evaluate its analysis of potential impacts during and after implementation.

## **PLAN OF OPERATIONS APPROVAL DECISION UNDER SURFACE MANAGEMENT REGULATIONS (43 CFR§3809)**

The Winnemucca District, Humboldt River Field Office (WD/HRFO), has reviewed the modification to the Coeur Rochester Plan of Operations (Plan), case file NVN064629, which included the Final Permanent Closure Plan. The Plan was submitted in June 2014 and was last revised in December 2015. An Environmental Impact Statement (EIS), DOI-BLM-NV-W010-2014-0022-EIS was prepared and is detailed in the above Record of Decision (ROD).

It is my decision to approve the modification to Plan NVN064629, including the environmental protection measures specified in the plan of operations. This approval is subject to the attached conditions of approval, referenced in the above ROD (pages 1-7). CRI may only perform those actions that have been described in the Plan. Implementation of the aforementioned conditions will prevent unnecessary or undue degradation.

The surface occupancy proposed in the Plan meets the conditions specified in the applicable regulations (43 CFR§3715). The BLM is in concurrence with the occupancy of the subject lands. CRI must comply with sections 3715.2, 3715.2-1, and 3715.5 of the regulations.

This approval does not constitute: certification of ownership to any person or company named in your plan of operations; recognition of the validity of any mining claims named in your plan of operations; or recognition of the economic feasibility of the proposed operations.

No work is authorized under the modified plan of operations until CRI has complied with all federal, state and local regulations, including obtaining all necessary permits from the Nevada Division of Environmental Protection (NDEP) and other federal, state and local agencies.

Activities approved in this decision shall not begin until the BLM Nevada State Office issues a decision accepting the reclamation financial guarantee. An updated Reclamation Cost Estimate (RCE) for your project was received by the BLM on December 16, 2015, and updated on June 30, 2016. We have reviewed your updated RCE and agree that an increased financial guarantee amount of \$95,335,059 would satisfy the requirements to have your proposed project reclaimed. You must also seek concurrence from the Nevada Division of Environmental Protection, Bureau of Mining Regulation and Reclamation (NDEP/BMRR). The types of financial instruments that are acceptable to the BLM are found at 43 CFR 3809.555. Please contact the BLM Nevada State Office at (775) 861-6400 for further information on the financial guarantee process.

In accordance with 43 CFR 3809.552(c), an updated cost estimate for your existing long-term contingency fund will be submitted to the BLM HRFO within 30 days of this decision that include the revisions to your long term closure and post-closure period maintenance of the Rochester/Nevada Packard mine site, as described in the Plan of Operations Amendment 10 (POA10) and Final Permanent Closure Plan for the Coeur Rochester Mine Project (NVN064629). The updated costs should include a complete description of the assumptions used for the costs in the financial analysis. The cost estimate should use the latest versions of the Standardized Reclamation Cost Estimate (SRCE), Heap Leach Draindown Estimator (HLDE), Interim Fluid Management (IFM), and Process Fluid Stabilization (PFS) models, and any other

associated cost models/estimates needed to estimate an appropriate fund amount that conforms to existing conditions, all appropriate regulations, and authorized operating parameters.

If you are adversely affected by this decision, you may request that the BLM Nevada State Director review this decision. If you request State Director Review, the request must be received in the BLM Nevada State Office at: **BLM Nevada State Office, State Director, 1340 Financial Blvd., Reno, Nevada 89502**, no later than 30 calendar days after you receive or have been notified of this decision.

The request for State Director Review must be filed in accordance with the provisions in 43 CFR 3809.805. This decision will remain in effect while the State Director Review is pending, unless you request and obtain a stay (suspension) from the State Director. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted using the standards and procedures for obtaining a stay (43 CFR 4.21) from the Interior Board of Land Appeals (IBLA).

If the State Director does not make a decision on your request for review of this decision within 21 days of receipt of the request, you should consider the request declined and you may appeal this decision to the IBLA. You may contact the BLM Nevada State Office to determine when the BLM received the request for State Director Review. You have 30 days from the end of the 21-day period in which to file your Notice of Appeal with this office at 5100 E. Winnemucca Blvd., Winnemucca, Nevada, 89445, which we will forward to IBLA.

Under 43 CFR 3809.801(a)(1), if you wish to bypass a State Director Review, this decision may be appealed directly to the IBLA in accordance with the regulations at 43 CFR part 4. Your Notice of Appeal must be filed in this office at 5100 E. Winnemucca Blvd., Winnemucca, Nevada, 89445, within 30 days from receipt of this decision. As the appellant you have the burden of showing that the decision appealed from is in error. Enclosed is BLM Form 1842-1 which contains information on taking appeals to the IBLA. This decision will remain in effect while the IBLA's decision is pending, unless you request and obtain a stay under 43 CFR 4.21. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted under the criteria in 43 CFR 4.21.

### **Request for Stay**

If you wish to file a petition (request) pursuant to regulations 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by IBLA, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of this notice of appeal and petition for a stay must also be submitted to each party named in the decision and, to the IBLA, and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

### Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to parties if the stay is granted or denied.
2. The likelihood of the appellant's success on the merits.
3. The likelihood of immediate and irreparable harm if the stay is not granted.
4. Whether the public interest favors granting the stay.

Approval of the Plan by the BLM does not constitute a determination regarding the viability or ownership of any unpatented mining claims involved in the mining operation. Approval of the Plan in no way implies the economic viability of the operations. Any modification to the Plan must be coordinated with and approved by the authorized officer. Surface occupancy related to the Plan is reasonably associated with the mining operation. The Bureau's authority applies only to activities on public land. However, federal law and policy require that mitigation measures associated with this project apply to private lands of the project as well as to the public lands.

This Decision is issued pursuant to 43 CFR 3809.803. It is effective immediately. In the case of an appeal before the Office of Hearings and Appeals (OHA), this Decision will remain in effect unless OHA grants a stay under §4.21(b) of this title.

**COEUR ROCHESTER MINE PLAN OF OPERATIONS AMENDMENT 10 PROJECT  
(POA10) AND CLOSURE PLAN  
CONDITIONS OF APPROVAL AND APPLICANT COMMITTED ENVIRONMENTAL  
PROTECTION MEASURES**

**CONDITIONS OF APPROVAL**

1. Impacts on greater sage-grouse habitat will be mitigated by implementing one or more of the compensatory mitigation projects described below. Mitigation will occur within ten years of the ROD for this EIS.
  - a. Rock Spring Restoration Project—This project involves fencing a spring and associated five to ten acres of sagebrush and riparian habitat that is currently heavily degraded by wild horse use. The project will also involve plumbing the existing spring box to route water approximately half a mile to an existing trough and seeding outside of the enclosure. The project will be in the Soldier Meadows Allotment, in Priority Habitat Management Area (PHMA).
  - b. Rock Spring Creek Restoration Project—This project involves fencing a spring and associated five to ten acres of sagebrush and riparian habitat, including installing a spring box or water catchment system to route water to a new trough outside of the fenced spring area. Seeding may occur outside the enclosure. Several other springs in the vicinity would benefit from similar improvements, and the project could include improving some or all of them. The project will be in the Pine Forest Allotment, in PHMA.
  - c. Pine Forest Road Restoration and Re-route Project—This project involves several components, including two meadow restorations (totaling over 100 acres), approximately five miles of road abandonment, closed road restoration, and improved road barriers. Details of this project are in development. The project will be in the Pine Forest Allotment in PHMA.
2. CRI will contribute funds in the way of a performance bond for greater sage-grouse mitigation, which the BLM will administer, similar to the financial guarantee for reclamation. A financial guarantee will be held until habitat restoration objectives are achieved for the mitigation project(s). The project(s) will be monitored over five years or until they are successful, as determined by the BLM. Expected performance and success criteria will be determined as stated in Chapter 6 of the Coeur POA10 EIS.
3. The applicable Required Design Features for greater sage-grouse from Appendix C of the RMP Amendment (Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana, Nevada and Northeastern California, Oregon, Utah, September 2015) as outlined in Chapter 6 of the Coeur POA10 EIS will be implemented for the project.
4. A treatment plan (*A Treatment and Data Recovery Plan for Two Sites in the Coeur Rochester, Inc. Plan of Operations Amendment Number 10 Area of Potential Effects, Pershing County, Nevada* dated June 19, 2015) has been prepared, with SHPO concurrence on 25 November, 2015, that includes mitigation measures that address anticipated direct impacts on the prehistoric component of NRHP-eligible site CrNV-22-

3545 and anticipated indirect impacts on NRHP-eligible site CrNV-02-401 (the Panama Townsite). The treatment plan includes the following:

- a. CRI shall develop and submit to the BLM for approval a mine worker education program on the consequences of unauthorized collection of artifacts.
  - b. CRI will be financially responsible for the implementation of the Treatment Plan.
  - c. A detailed description of the treatments proposed for historic properties eligible for the NRHP, with an explanation or rationale provided for the choice of the proposed treatments. Data recovery will be phased, and Phase 1 will consist of:
    - i. Geomorphologic assessment and data recovery through mapping, surface artifact collection, and limited excavation for the three extant prehistoric loci of site CrNV-22-3545 (Locus C, Locus C-100, and Locus C-361). Note that Phase 2 might entail excavating 5-meter by 5-meter or 10-meter by 10-meter grids if it is warranted, based on the results of Phase 1 and only after consultation with the BLM and with SHPO concurrence,
    - ii. Archival and documentary research and the development of historic narratives for the Panama Townsite, and
    - iii. Development of a display (interpretive panel) at the Marzen House Museum in Lovelock, Nevada, that focuses on the High Line Road, the Panama Townsite, and the possible role of Chinese laborers in mining on the site.
5. CRI will monitor the proposed activity to identify or prevent impacts according to the operating permits and plans in Table 6-1 of the EIS.
  6. An as-built map will be submitted to the BLM WD/HRFO by April 15 of each year, showing topography, township, range and sections, locations of all mine operations and activities, including new areas of disturbance, and areas that have been reclaimed with month and year the area was regraded or reseeded.
  7. The financial guarantee, or portions thereof, shall be released upon the BLM WD/HRFO and NDEP/BMRR concurrence that adequate reclamation has been successfully completed. Bond release criteria shall be those set forth in regulations at 43 CFR 3809, and the *Nevada Guidelines for Successful Revegetation for the Nevada Division of Environmental Protection, the Bureau of Land Management and the U.S.D.A. Forest Service* (Instruction Memorandum #NV99-013). Bond release will be conducted according to the Surface Management Regulations at 43 CFR 3809.590 through 3809.594.
  8. CRI will monitor groundwater sources according to State of Nevada, Department of Environmental Protection standards and will maintain water quality and quantity for wildlife, livestock, and human consumption to State of Nevada standards.
  9. Protection measures shall be taken to control potential artesian groundwater flows. In the event an uncontrollable artesian flow occurs, the artesian flow shall immediately be brought to the attention of the BLM authorized officer. The operator shall be responsible

for all costs associated with any releases of subsurface fluids resulting from their exploration drilling operations and practices.

10. The Migratory Bird Treaty Act prohibits the destruction of nests (nests with eggs or young) of migratory birds. In order to avoid potential impacts to breeding migratory birds, a nest survey shall be conducted within potential breeding habitat prior to any surface disturbance during the avian breeding season (March 1 – August 31). If nests are located, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nest material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) shall be delineated and the buffer area avoided to prevent destruction or disturbance to nests until they are no longer active. The site characteristics used to determine the size of the buffer are: a) topographic screening; b) distance from disturbance to nest; c) the size and quality of foraging habitat surrounding the nest; d) sensitivity of the species to nest disturbances; and e) the protection status of the species.
11. Bi-annually, starting in 2016, until the final release of revegetation, the operator shall complete a noxious weed survey within the entire plan of operations boundary. The operator shall then have a licensed contractor treat the noxious weeds as appropriate and as approved by the BLM. A report of the findings and treatment method(s) shall be sent to the BLM within 60 days after treatment. A pesticide use proposal will need to be submitted to the BLM for approval prior to noxious weed treatment.
12. The operator shall ensure that all mine and exploration equipment is power-washed before entering the Project Area to prevent the spread of noxious weeds. Washing of this equipment is not authorized on public lands, unless an approved wash-point/facility is established in conjunction with your plan.
13. No hazardous or toxic waste, waste oil or lubricants shall be disposed of on public lands. Trash and other debris shall be contained on the work site and then hauled to an approved landfill. Burial and/or burning of trash and other debris is not authorized without specific permits from BLM and other appropriate agencies.
14. All hazardous material spills regardless of size will be cleaned up. Motorized equipment will be inspected daily by the operator for leaks or fluid loss and will be maintained to prevent leaks or fluid loss. If fluids are lost due to leaks during operations, the operator will shut down the leaking machine and will collect any contaminated soil (if present) in a 55 gallon barrel for transport offsite to a permitted facility for proper treatment and disposal. Used oil, antifreeze, batteries, tires and other recyclable materials resulting from equipment maintenance will be collected in closed containers or on pallets, as appropriate, and will be removed from the site on a regular, frequent basis for recycling. Under no circumstances will large quantities of these or other used materials be allowed to accumulate at the site, nor will any of these materials be disposed on or in the land at the site.

15. All reporting requirements specified by the Nevada Division of Environmental Protection (NDEP) or Nevada Department of Wildlife (NDOW) shall also be reported to the BLM WD/HRFO within the same time frames.
16. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.
17. As directed in 43 CFR 3809.420(b)(9) *Protection of survey monuments*, it is the responsibility of the CRI to bear the total cost of any necessary restoration or reestablishment activity of the affected monument(s). Correspondingly, in the course of any surface disturbance activity when PLSS/Cadastral corners or accessories may or have been subject to obliteration, destruction, or damage, it will be the responsibility of CRI to protect and preserve the PLSS/Cadastral monumentation.
18. The following precautionary measures should be taken to prevent wildland fires. In the event your operations should start a fire, you could be held liable for all suppression costs under Title 43 CFR 9212.4. These are in addition to any requirements imposed by the Mine Safety and Health Administration or other governing agencies for work-area fire protection.
  - a. All vehicles should carry at a minimum a shovel and five gallons of water (preferably in a backpack pump), in addition to a conventional fire extinguisher.
  - b. Adequate fire fighting equipment (a shovel, a pulaski, standard fire extinguisher(s), and an ample water supply) should be kept readily available at each active drill site.
  - c. Vehicle catalytic converters should be inspected often and cleaned of all flammable debris.
  - d. All cutting/welding torch use, electric-arc welding, and grinding operations should be conducted in an area free, or mostly free, from vegetation. An ample water supply and shovel should be on hand to extinguish any fires created from sparks. At least one person in addition to the cutter/welder/grinder should be at the work site to promptly detect fires created by sparks.
  - e. Any fire restrictions or closures issued by the BLM WD will be publicized in the local media, and notice will be posted at various sites throughout the district. We will not individually contact operators. Your plan serves as an authorization that may exempt your operations from certain restrictions in those orders. Your personnel will be responsible for being aware of and complying with the requirements of those orders.
  - f. Any wildland fire observed should be reported immediately to the BLM Central Nevada Interagency Dispatch Center at (775) 623-3444.



## **APPLICANT COMMITTED ENVIRONMENTAL PROTECTION MEASURES**

The Plan includes the environmental protection measures outlined below. These measures are outlined by resource, or program; however, all will apply across the project area and across resources, as applicable.

### ***Cultural Resources***

- Employees and contractors associated with the site will be informed that it is illegal to knowingly disturb cultural resources (historic or archaeological) or collect artifacts.
- CRI will not knowingly disturb, alter, injure, or destroy a historical or archaeological site, structure, building, or object. If CRI discovers any cultural resource that might be altered or destroyed by operations, the discovery will be left intact and immediately reported to the BLM authorized officer by telephone and in writing.

### ***Native American Religious Concerns***

- In accordance with 43 CFR, Part 10.4(g), CRI will notify the BLM authorized officer by telephone and in writing immediately on the discovery of human remains or funerary, sacred, or cultural patrimony objects (as defined in 43 CFR, Part 10.2). Further, in accordance with 43 CFR, Parts 10.4(c) and (d), the operator will immediately stop all activities in the vicinity of the discovery and will not restart them for 30 days or when notified to proceed by the BLM authorized officer.

### ***Paleontological Resources***

- In the event that undiscovered paleontological resources are encountered (including all significant vertebrate fossils and deposits of petrified wood), they will be left intact, and their presence will immediately (as soon as possible) be brought to the attention of the BLM authorized officer.

### ***Air Quality***

- Air quality permits from the NDEP Bureau of Air Pollution Control (BAPC) will be adhered to for the facilities and operations. Committed air quality practices will include dust control for mine unit operations, as required by the BAPC's Fugitive Dust Control and Process Equipment Emission Control Plan Permit, Number AP 1044-0063. In general, air quality control measures will include dust abatement techniques on unpaved and unvegetated surfaces, equipment maintenance to ensure proper function, adherence to posted speed limits, and compliance with NDEP air quality operating permits and the Nevada Mercury Control Program operating permit AP1044-2242.
- Disturbed areas will be seeded with an interim seed mix to minimize fugitive dust emissions from unvegetated surfaces. Fugitive dust in the project area will be controlled at the crusher and conveyor drop points through the use of water sprays and other controls. Appropriate emission control equipment will be installed and operated in accordance with the construction and operating air permits.

### ***Water***

- CRI will monitor groundwater sources according to NDEP standards and will maintain water quality and quantity for wildlife, livestock, and human consumption to the State of Nevada standards. CRI will operate in such a manner as to not disturb the Packard Flat artesian well, the water pipeline, and its associated water sources and developments.

### ***Drill Hole Abandonment***

- Mineral exploration and development drill holes, monitoring, and production wells subject to NDWR regulations will be abandoned in accordance with applicable rules and regulations (NAC 534). Boreholes will be sealed to prevent cross contamination between aquifers, and the required shallow seal will be placed to prevent contamination by surface access.
- Monitoring wells will be abandoned and reclaimed, as required by NAC 534. Well abandonment methods will differ based on well hydrologic conditions (e.g., dry, standing water, or artesian) and completion methods (e.g., type of casing, such as PVC or steel, perforated interval, and unperforated).

### ***Noxious Weeds***

- CRI will minimize nonnative and invasive species weed infestations or population spread in the project area, in accordance with the weed management plan (CEA 2014). CRI periodically evaluates the effectiveness of the weed management plan and will incorporate additional measures if directed by BLM. Areas of concern will be identified and surveyed in the field by a certified pesticide applicator. Surveys will be conducted concurrently with weed treatments. Weed control measures may include mechanical removal or herbicide application. Pesticide application reports (PARs) will be submitted to the BLM following each weed treatment event.
- Additional weed management activities will include educating employees, power washing the undercarriage of vehicles and equipment before they are driven onto the site, and using weed-free straw and materials for stormwater management and reclamation.
- Seeding will be conducted using certified weed-free seed.
- Concurrent reclamation will aid in minimizing the spread of weeds onto disturbed areas.
- Removing and disturbing vegetation will be kept to a minimum through construction site management (e.g., using previously disturbed areas and existing easements and by limiting equipment/materials storage and staging areas).
- Herbicides will be mixed and herbicide containers and spray equipment will be rinsed only in areas that are a safe distance from environmentally sensitive areas and points of entry to bodies of water, such as storm drains, irrigation ditches, streams, lakes, and wells. All herbicide containers and contaminated personal protective equipment (PPE) will be disposed of according to herbicide label specifications.

### ***Growth Medium Management***

- During stripping or grading/surface clearing, growth medium will be stockpiled in designated areas. Growth medium stockpiles will be located such that mining operations will not disturb them. The surfaces of the stockpiles will be shaped

during construction to reduce erosion. To further minimize wind and water erosion, after shaping, the growth medium stockpiles will be seeded with a mix approved by the BLM. Diversions and berms will be constructed around the stockpiles to prevent erosion from overland run-on or runoff. BMPs, such as silt fences or certified weed-free straw bales, will be used to contain sediment resulting from precipitation.

### ***Fire Protection***

The following precautionary measures will be taken to prevent wildland fires:

- Wildland fires will be reported immediately to the BLM Central Nevada Interagency Dispatch Center ([775] 623-3444). To the extent known, CRI will include the location of what is burning (latitude and longitude if possible), the time the fire started, who or what is near the fire, and the direction of fire spread. CRI will place the call even if the available mine personnel could handle the situation or if the fire were to pose no threat to the surrounding area.
- CRI roster of emergency phone numbers will be available to mine personnel so that the appropriate firefighting agency could be contacted in case of a fire.
- All vehicle operators will carry at a minimum a shovel and a conventional fire extinguisher.
- Vehicle catalytic converters (on vehicles that regularly enter and leave the project area) will be inspected often and cleaned of all flammable debris.
- All cutting/welding torch use, electric arc welding, and grinding will be conducted in an area free, or mostly free, of vegetation. An ample water supply and shovel will be on hand to extinguish any fires created from sparks. At least one person in addition to the cutter/welder/grinder will be at the worksite to promptly detect fires created by sparks.
- Personnel will comply with the requirements of any fire restrictions or closures issued by the BLM WD, as publicized in the local media or posted at various sites throughout the field office district.
- All applicable state and federal fire laws and regulations will be complied with, and all reasonable measures will be taken to prevent and suppress fires in the project area.
- Personnel will be allowed to smoke only in designated areas, such as the visitor parking area.

### ***Wildlife, Including Special Status Species and Migratory Birds***

- Speed limits will be adhered to in the project area for safety and to protect wildlife and livestock.
- Wherever possible, hand spraying of herbicides is preferred over other methods to prevent impacts on wildlife, including special status species. Noxious and invasive weeds will not be controlled within 0.5 mile of nesting and brood-rearing areas for special status species during the nesting and brood-rearing season.
- If potential Preble's shrew habitat is disturbed, an equal amount of potential shrew habitat will be surveyed for three seasons (spring, summer, and fall), using a BLM-approved Preble's shrew survey protocol. In addition, disturbed potential shrew habitat will be reclaimed with a recommended seed mix that will support Preble's shrew.

- When the mine is closed and before closure e-cell G is constructed, bats and their habitat will be inventoried within 200 yards of adits or caves. The inventory will take place before the surface is disturbed and those areas are occupied. If special status bat species are present in the survey area, additional measures will be developed, in consultation with the agencies, to ensure that any impacts on special status bat species are avoided.

CRI holds an NDOW industrial artificial pond permit for leaching operation ponds. As part of the permit, CRI must implement the following measures to prevent wildlife mortality:

- In order to avoid exposing wildlife to chemicals from heap leaching facilities, fencing will be installed and will comply with requirements of NDOW's industrial artificial pond permit. The minimum standard fence will be eight feet high, the bottom four feet of which will be composed of woven or mesh wire. Nothing greater than two-inch mesh will be used on the bottom two feet, and a maximum of eight-inch mesh will be on the top. The remainder of the fence above the woven or mesh wire will be four-strand smooth or barbed wire. The wire spacing will be 10 inches, 12 inches, and 14 inches beginning from the top of the woven or mesh wire. If a cyclone or chain-link fence were used, it will be eight feet high and the bottom will be tight to the ground.
- Open waters that contain any chemical solutions at levels lethal to wildlife (e.g., barren and pregnant solution ponds) will be covered or contained to preclude access by birds and bats. All covers or containers will be maintained to preclude access by wildlife for as long as the pond or container contains chemicals at levels lethal to wildlife.
- Before the release of drill rigs at sites that contain mud pits with standing fluid, the operator will construct a fence completely around the mud pits to exclude wildlife and livestock.

#### *Migratory Birds*

- The MBTA prohibits the destruction of the nests with eggs or young of migratory birds. Most of the songbirds in the project area are migratory and are protected by this provision. Nesting season runs from approximately March 1 through August 31. A careful examination of each area to be disturbed, including cross-country travel routes during the breeding season, will be done to ensure no nests with eggs or young are present. If such nests are found, they will be avoided by an appropriate distance to prevent destroying them and disturbing the nesting birds.
- In order to avoid potential impacts on burrowing owls, a qualified biologist will conduct a burrowing owl survey before ground disturbance in areas identified as potential burrowing owl habitat in the project area. Surveys will be conducted at any time of the year because some burrowing owls are year-round residents and do not migrate. Surveys must be conducted no more than 10 days and no fewer than 3 days before the disturbance. They must follow established BLM standards and protocols and should be approved by the BLM biologist beforehand. If active burrows are found, the BLM biologist must be notified immediately, and a buffer of 500 meters, or line of sight (lesser of the two), will be placed around the owl's burrow until it vacates it. If active burrows are found during the breeding season

(March 1 to August 31), the active burrow will not be disturbed until after the breeding season or the burrow is no longer active.

- Standard raptor protection designs, as outlined in Suggested Practice for Avian Protection on Power Lines (APLIC 2006), will be incorporated into the design and construction of power lines.

#### ***Bats***

- Mine workings within 200 yards of surface-disturbing activities will be examined for use by bats before these activities begin. If bats were found in mine workings within 200 yards of surface-disturbing activities, CRI will coordinate with a BLM biologist to reduce impacts on bats before the surface is disturbed.

#### ***Greater Sage-Grouse***

- According to the most recent biological baseline report (JBR 2013) no greater sage-grouse sign or individuals were observed in the project area. In accordance with the Strategic Plan for Conservation of Greater Sage-Grouse in Nevada (Greater Sage-Grouse Advisory Committee 2012), CRI will minimize impacts on greater sage-grouse by limiting disturbance areas, performing breeding bird surveys before ground disturbance, reclaiming disturbed areas after use, and working with agencies to make long-term habitat improvements through reclamation.

#### ***Visual Resources and Lighting***

- To the extent possible and to minimize impacts on visual resources, buildings will be painted in colors that are compatible with the natural environment.
- To minimize visual intrusions, existing utility corridors, roads, and areas previously disturbed will be used wherever possible. New road construction will be limited or avoided to the extent possible.
- To reduce light pollution and maintain dark sky attributes, screens that do not allow light bulbs to shine up or out will be used. Proposed lighting will be located and directed to avoid light pollution onto adjacent lands as viewed from a distance, in accordance with the site lighting management plan (CRI 2013).
- Lighting fixtures will be hooded and shielded, will face downward, will be in soffits, as appropriate, and will be directed onto the pertinent site only, away from adjacent parcels or view areas. Where possible, existing topography will be used to shield portable light equipment from adjacent parcels or view areas.
- In order to minimize visual impacts on the Rochester National Register Historic District, the NV Energy power line and access road will be located farther downhill to the east.

#### ***Acid Rock Drainage***

- CRI will develop and maintain a temporary PAG material storage monitoring plan to verify the absence of or provide early detection for the existence of or potential formation of acid rock drainage and metal leaching. Monitoring may include regular inspection of the temporary PAG material storage area for conditions indicating substantive geochemical reactivity of PAG material, ponding of potentially impacted stormwater, or seepage.
- Should CRI identify the development of ARD, contingency measures will be implemented. These may include grading material surfaces to promote runoff, redirecting stormwater from upgradient areas around the temporary storage areas,

and regularly removing snow from temporary PAG material storage surfaces as soon as practicable. In addition, CRI will manage meteoric waters that come in contact with the temporary PAG material storage area through use of BMPs and applicable measures defined in CRI's SWPPP. Impacted waters will not be discharged.

#### ***Safety and Security***

- CRI maintains strict security procedures to prevent unauthorized access to the project area. It is surrounded by standard three-strand barbed wire fence, and the main access road is controlled by the 24-hour staffed security gate. Access into the Packard Mine is controlled by locked gates. Routine vehicle travel and inspections by mine personnel also serve to identify the presence of unauthorized individuals. In addition, all process areas are enclosed by an eight-foot-high chain-link fence to inhibit large wildlife species and livestock from entering. Other standard security and safety procedures are
- Speed limits posted on access routes and on roads throughout the project area
- Warning signs posted where flammable materials and hazardous materials are stored and where conditions warrant it
- Safety training for all employees, as required by MSHA

#### ***Waste***

- Nonhazardous project-related refuse will be collected in approved, lidded trash bins or containers and removed from the project area for disposal in accordance with county, state, and federal regulations or disposed of in the on-site permitted landfill. Debris that may have hazardous characteristics, residues, or fluids will not be disposed of in these trash bins and containers.
- A class III-waivered and permitted landfill in the project area has been designed, permitted, and constructed in accordance with applicable local, state, and federal regulations. No hazardous or toxic waste, waste oil, or lubricants will be disposed of on public lands. Unauthorized burial or burning of trash and other debris will not occur.

#### ***Erosion, Sedimentation, and Surface Water Quality***

- The surface will not be disturbed when muddy conditions exist. These are defined as those temporary periods when ruts develop that are six or more inches deep. BMPs will be used strategically to reduce erosion and sedimentation in accordance with the SWPPP.